

1274-EX-ST-2018

EL667273

Experimentation Description

The purpose of this FCC license application is to obtain permission for Experimental Radio service that allows transmission of low RF power in the mobile telephone frequency bands for an aircraft electromagnetic compatibility (EMC) test. This aircraft test serves to demonstrate that the Boeing 787 modified aircraft is tolerant to select Transmitting Portable Electronic Devices (T-PEDs). The T-PED emulator for the test consists of a signal generator, antenna, amplifier. The test will be performed at relatively low power levels inside the aircraft. All doors and access panels on the aircraft will be closed during the test to mitigate interference to commercial users. The aircraft will be located on the ramp outside L3 Technologies testing facility located on the TSTC Waco Airport, Waco TX.

No attempt will be made to link to terrestrial cell sites. Evaluators can decrease power and accept time and frequency restrictions.

Because there are multiple broadcast channels within each T-PED technology which often overlap with channels of other T-PED technologies, the frequency ranges were consolidated to produce the requested ranges, along with their worst-case power levels.

Types of T-PED technology that would be tested:

- LTE-FDD
- LTE-TDD
- cdmaOne
- cdma2000
- 1xEv-DO
- W-CDMA
- UMTS (FDD mode)
- EDGE
- GSM
- AMPs
- iDEN
- Wi-MAX